

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~An ATM (Asynchronous Transfer Mode)~~ A multiplexing apparatus for connection to ~~an ATM~~ a switching unit and to each of plural subscribers through ~~ATM~~ communication lines and performing multiplexing processing of ~~ATM~~ cells sent from the plural subscribers, the ~~ATM~~ multiplexing apparatus comprising:

detection means for detecting a congestion state corresponding to received ~~ATM~~ cells from the subscribers and outputting a level value corresponding to the congestion state, said level value indicating an amount of congestion; and

discard means for selectively discarding the received ~~ATM~~ cells from the subscribers based on a communication state determined by ~~ATM~~ cells received from the ~~ATM~~ switching unit and ~~ATM~~ cells received from the subscribers and based on the level value of the congestion state.

2. (Currently Amended) ~~An ATM~~ A multiplexing apparatus as defined in claim 1, wherein the communication state is updated on the basis of header information included in the received ~~ATM~~ cells from the ~~ATM~~ switching unit and header information included in the received ~~ATM~~ cells from the subscribers.

3. (Currently Amended) ~~An ATM~~ A multiplexing apparatus as defined in claim 1, wherein the detection means comprises storage means for storing the received ~~ATM~~ cells from the subscribers, and comparison means for generating the level value on the basis of a degree of occupancy in the storage means of the stored ~~ATM~~ cells and a preset threshold.

4. (Currently Amended) ~~An ATM~~ A multiplexing apparatus as defined in claim 1, wherein the discard means comprises:

switching unit monitor means for receiving the ~~ATM~~ cells from the ~~ATM~~ switching unit and outputting header information of the received ~~ATM~~ cells from the ~~ATM~~ switching unit as first header information; and

subscriber monitor/selection means for receiving the ~~ATM~~ cells from the subscribers and outputting header information of the received ~~ATM~~ cells from the subscribers as second header information and selectively discarding the received ~~ATM~~ cells from the subscribers on the basis of a discard command,

wherein the discard ~~control~~ means updates status data indicating the communication state on the basis of the first header information or the second header information and generates a discard command for commanding discard of the received ~~ATM~~ cells from the subscribers on the basis of the updated status data and the level value of the a warning signal.

5. (Canceled)

6. (Canceled)

7. (Currently Amended) ~~An ATM~~ A multiplexing apparatus as defined in claim 4, wherein the discard command is generated on the basis of criteria of a preset logic decision.

8. (Canceled)

9. (Currently Amended) A method of discarding ~~ATM~~ cells comprising:

receiving ~~ATM~~ cells sent from subscribers and detecting a congestion state of the received ~~ATM~~ cells from the subscribers;

updating a communication state determined ~~by~~ based on the received ~~ATM~~ cells from the subscribers and based on received ~~ATM~~ cells from ~~an ATM~~ a switching unit;

deciding, to obtain a decision result, whether discard processing of the received ~~ATM~~ cells from the subscribers is performed on the basis of the updated communication state and a level value of a signal indicating the congestion state, said level value indicating an amount of congestion; and

selectively performing the discard processing on the basis of the decision result.

10. (Currently Amended) ~~An ATM (asynchronous transfer mode)~~ A multiplexing device comprising:

- a discard control component configured to maintain communication state information determined based on header data of ~~ATM~~ cells received from ~~a an~~ A ~~ATM~~ switch and a subscriber; and
- a detection component including:
 - a queue for storing ~~ATM~~ cells from the subscriber, and
 - a comparison component configured to compare a degree of occupancy of the queue to a threshold to obtain a congestion level corresponding to an amount of congestion of the queue,

wherein the discard control component selectively discards ~~ATM~~ cells received from the subscriber based on the congestion level and the communication state information.

11. (Previously Presented) The device of claim 10, wherein the device includes a plurality of discard control components and detection components, the plurality of discard control components and detection components being arranged such that one control component and one detection component is assigned to each subscriber.

12. (Previously Presented) The device of claim 10, wherein the threshold further includes:

- a plurality of thresholds corresponding to different congestion levels.